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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,465	12/29/2000	Hung V. Tran	12264RRUS02U	7183

7590 06/07/2004  
Garlick & Harrison  
P.O. Box 670007  
Dallas, TX 75367

EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/751,465

**Applicant(s)**

TRAN ET AL.

**Examiner**

Prenell P Jones

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 6-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

**DETAILED ACTION**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-5,12-15, drawn to transmitting data packets in a lossy environment whereby compressed header includes differences based upon comparison of various data packets, classified in class 370, subclass 324, 349, 465, 474, 477, 503, 510 and 521.
  - II. Claims 6-8 drawn to storing computer instructions in memory that define compression logic, classified in class 710, subclass 60, 62, 68, 306, 313,
  - III. Claims 9-11, drawn to receiving compression data, reconstruction/conversion of compressed data, classified in class 370, subclass 384, 487, 522, 535.
1. Because these inventions are distinct for the reasons given above and have acquired separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
2. Inventions Groups I, II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In this instant case, the combination as claimed does not require the particulars of the subcombination as claimed because reconstructing packets, converting signals and storing compression logic in memory.
3. During a telephone conversation with James Harrison on May 26, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5, 12-15.

Applicant must make confirmation of this election in replying to this Office action. Claims 6-11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim 6-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **with** traverse in Paper No. 5.

***Claim Rejections - 35 USC § 112***

2. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant is claiming in claim 13, "further include uncompressed header information for those portions of a header that could not be compressed for which ***differences with the full header of the first communication signal could not be specified***" is not described in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim 2 recites the limitation "the first signals" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the Internet" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-5, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koodli et al in view of Le.

Regarding claims 1-4 and 12 and 14, Koodli discloses in a wireless communication system (Abstract, Figs. 3, 5B, 5C, 5D, 6, col. 2, line 13-49, col. 7, line 17 thru col. 8, line 65) achieving robust IP/UDP/RTP header compression associated with unreliable networks/lossy

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environments whereby packets are transmitted in sequence with associated sequence numbers, compressed headers and full headers are transmitted, compressed headers include difference data, uncompressed headers representing previous packets, uncompressed header information, (col. 9, line 1-37) compressed header consists of delta values. Koodli is silent on compressed headers including differences based on any one of previous packets. In analogous art, Le discloses in a wireless system techniques for compressing header fields in data packets, (col. 1, line 23-39, col. 4, line 31-65, col. 17, lines 8-24, col. 29, line 7 thru col. 32, line 65, Fig. 20) wherein full headers are sent transmitted to initiate sessions, compressed header includes differences values, delta encoding (difference values) associated with compressed headers, (Fig. 20, col. 32, line 29-64) delta values calculated with respect to reference based packets, wherein current packet values are calculated based on any previous packet value and not just an immediate previous value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement compressed headers that contain delta/difference values based on any previous packet as taught by Li with the teachings of Koodli for the purpose of increasing bandwidth management along and further minimize packet loss associated in an unreliable system/lossy environment.

Regarding claim 5, as indicated above, Le discloses in a wireless system techniques for compressing header fields in data packets, (col. 1, line 23-39, col. 4, line 31-65, col. 17, lines 8-24, col. 29, line 7 thru col. 32, line 65, Fig. 20) wherein full headers are sent transmitted to initiate sessions, compressed header includes differences values, delta encoding (difference values) associated with compressed headers, (Fig. 20, col. 32, line 29-64) delta values calculated with respect to reference based packets, wherein current packet values are

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calculated based on any previous packet value and not just an immediate previous value. Le further discloses (col. 18, line 1-29) discarding packets with excessive jitter/errors.

Regarding claim 14, as indicated above, Le discloses in a wireless system techniques for compressing header fields in data packets, (col. 1, line 23-39, col. 4, line 31-65, col. 17, lines 8-24, col. 29, line 7 thru col. 32, line 65, Fig. 20) wherein full headers are sent transmitted to initiate sessions, compressed header includes differences values, delta encoding (difference values) associated with compressed headers, (Fig. 20, col. 32, line 29-64) delta values calculated with respect to reference based packets, wherein current packet values are calculated based on any previous packet value and not just an immediate previous value. Le further discloses (col. 36, line 28-37) K1 bit mask that identifies compressed headers.

Regarding claim 15, as indicated above, Koodli discloses in a wireless communication system (Abstract, Figs. 3, 5B, 5C, 5D, 6, col. 2, line 13-49, col. 7, line 17 thru col. 8, line 65) achieving robust IP/UDP/RTP header compression associated with unreliable networks/lossy environments whereby packets are transmitted in sequence with associated sequence numbers, compressed headers and full headers are transmitted, compressed headers include difference data, uncompressed headers representing previous packets, (col. 9, line 1-37) compressed header consists of delta values. Koodli further discloses (Figs. 2A & 2B, col. 5, line 39-65) header fields that include bytes identifying Internet Protocol version.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 703-305-0630. The examiner can normally be reached on 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

May 27, 2004



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5/28/04